

# DAYSTAR

D I G I T A L

**LT200 LocalTalk Interface Board**  
**FS100 LocalTalk File Server**

***Installation Manual***

# **LocalTalk**

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For The  
IBM PC  
and PS/2

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# **Preface**

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About The  
DayStar  
LocalTalk  
Interface Boards

Thank you for purchasing the DayStar LocalTalk Interface Board for your IBM PC or PS/2.

The DayStar LocalTalk Interface Boards allow an IBM PC, PS/2 or other compatible computer to connect to the LocalTalk Local Area Network. Once connected to the network, the PC or PS/2 may share files and network devices, such as printers and file servers, with other users on the network, including Macintosh computers. Additionally, the IBM PC or PS/2 can function as a network server with the optional DayStar File Server package.

As DayStar continues to improve and enhance our product line, we would like to keep you informed of new product advancements. To take advantage of our Software Update Program and new product releases, please take a moment to complete the Product Warranty card included in the back of this manual. Only registered users will receive software updates, so please register your system today.

This manual provides basic information for installing and using the DayStar LocalTalk Board and DayStar File Server. If you are unfamiliar with using the IBM PC or PS/2, review the *DOS User's Manual* prior to installation of this board.

This manual refers to the DayStar LocalTalk Interface Board in both of its configurations. The PC Interface Board is intended for use in all PC bus computers (including the PS/2 model 25 and 30). The MC (Micro Channel) Interface Board is intended for all Micro Channel computers, including the PS/2 model 50 and higher.

If you purchased the DayStar File Server, follow the instruction in the Installation and Setup section, then refer to Chapter 4 on Using the DayStar File Server.

## About The DayStar LocalTalk Interface Boards

## About This Manual

Here's what you'll find in this manual:

- **Chapter 1: "Installation and Setup"** details the procedures for installing the LocalTalk Interface Board, both for the IBM PC and PS/2.
- **Chapter 2: "Using The DayStar Printing Software"** outlines the procedures for setting up and using the LocalTalk printing software.
- **Chapter 4: "Using The DayStar AFP Workstation Software"** outlines the procedures for setting up and using the AFP Workstation software.
- **Chapter 5: "Using The DayStar File Server"** provides a detailed reference guide for using the DayStar FS100 File Server with a PC or the PS/2.
- **Chapter 6: "Troubleshooting"** outlines a problem solution guide for troubleshooting your PC error messages.
- **Appendix A:** This section outlines the procedures for changing the PC Address.
- **Appendix B:** This section outlines the procedures for changing the Micro Channel Interrupt Levels and address.
- **Product Warranty:** Outlines the warranty for the DayStar LocalTalk products, and includes the Product Warranty Card that should be completed and returned to DayStar.

If you would like to receive additional information on other DayStar products, please call your dealer or DayStar Digital.

# Chapter 1

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Installation  
and Setup



This section covers the installation for both the LT200 and FS100 PC and MC Interface boards. Follow the installation instructions specific to your configuration and continue to the section on using the software.

## Installing The LocalTalk Interface Board

The DayStar LocalTalk Boards work in any IBM PC, PS/2 or other compatible computer. Your system should contain DOS 3.0 or later with 256K of memory. Some applications and newer machines may require additional memory to function properly. Refer to your User's Manual for specific requirements for your computer.

## System Requirements

DayStar boards do not use DMA or Interrupt levels, insuring compatibility with other circuit boards that may reside in your computer. The DayStar boards do, however, require an address configuration and are capable of operating in a number of PC port addresses. The boards are shipped with address 340H selected. Optional settings are described in Appendix A and B if you experience an address conflict with other circuit boards.

## System Resources

Please read all the installation instructions before beginning the installation procedure.

## Getting Started

**WARNING:** The DayStar LocalTalk board utilizes electronic components that are sensitive to static electricity. When handling and installing this board, care must be taken to prevent the components from being destroyed by static currents. Always work in an area of low static electricity and use an anti-static bracelet that is connected to a grounded surface to prevent static discharge.

The following is a brief list of precautions that will help to insure proper grounding:

- DO NOT attempt installation on a carpeted floor.
- DONOT wear leather shoes—rubber sole shoes are recommended.
- DO NOT attempt installation in an overly dry environment—spray mist the work area prior to installation.
- DONOT wear silk or polyester clothing while doing the installation—cotton clothing is recommended.
- REMOVE ALL JEWELRY (rings, bracelets, watches, etc.) prior to installation.
- TOUCH A METAL SURFACE on the IBM PC or PS/2 prior to picking up the board. This will release any static electricity that may be present.

DayStar designed the LocalTalk board for ease of installation, however, if you are not experienced with installing electronic components you may wish to refer the installation to a dealer or a trained service technician.

## PC Bus Hardware Installation

The PC version of the DayStar LocalTalk Board is designed for any IBM PC compatible computer, including the Micro Channel model 25 and 30.

**CAUTION:** Be sure you are properly grounded before unwrapping the DayStar LocalTalk Board or beginning this installation.

1. Turn off the power to your computer and unplug the power cords from the computer and monitor.
2. Remove the screws in the rear of the PC. The number of screws will vary depending on the PC you are

2. using. After removing all screws, the cabinet of the PC should slide forward. Be careful that the cabinet does not pull any cabling loose.
3. Once the cabinet is removed, select any slot to accept the card.
4. Remove the single screw that attaches the blank-off plate to the case of the computer, releasing it. Lift it out and place it somewhere safe, so that it may be replaced if needed.
5. Gently slide the DayStar LocalTalk Board into the connector slot you have selected on the PC motherboard. Firmly press the card into the socket once contact is made, ensuring that the plate on the DayStar board is up against the metal frame of the computer. Some computers are built slightly different, so this may not be precise, but there should be enough contact to replace the hold-down screw in the case of the computer.
6. Insert the hold-down screw provided by the PC manufacturer to secure the board in its place.
7. Replace the cabinet in the reverse order of the removal, being very careful not to grab any cabling as you slide the case on. Once the case is seated, re-install the screws and replace the power cords.
8. Using a standard DB-9 LocalTalk connector kit (available from Apple, and others), connect the DB-9 adaptor to the DayStar Board, firmly pressing the adaptor on to the card's connector. Tighten the two screws that are part of the node connection cable onto the nuts provided on the LocalTalk board. Connect the network to your node box with cabling provided in the kit. Further information on this process is available from your network installer.
9. Power up your PC. You are now ready to install your Workstation software to verify functional operation.

## MC Bus Hardware Installation

The MC version of the DayStar LocalTalk Board is basically the same product, with a different connector for plugging into the motherboard of the PS/2. Additionally, a software setup program must be executed after the physical installation. The following information is also contained in your User's Manual, Model XX Quick Reference and Reference Diskette Manual, that you received with your PS/2. Many of the warnings and cautions are very applicable, and we recommend that you be familiar with them.

## Configure Your PS/2 Setup Floppy

Before continuing with the hardware installation you should first configure your Setup Floppy. Be sure you have a backup of the Reference diskette before you continue with this procedure. A backup should have been made following the procedure in the IBM Quick Reference Manual when you set up your PS/2.

Upon normal boot up of your PS/2, copy the file: @6674.ADF from your DayStar Workstation diskette to your Reference diskette. This file contains information necessary for the DayStar LocalTalk board to function properly. This file contains the original setup information that your computer saves after the PS/2 is configured for operation. There are some options available in this file that are explained in Appendix B. Normal operation need not refer to that information, as the file is already configured to operate with the DayStar product line.

After the @6674.ADF file has been copied, you may proceed with the hardware installation.

## Install The MC Board

Place the PS/2 on a flat surface. If your PS/2 is a tower configuration, place the unit on its side. Remove the cover using the key provided by the dealer when the unit was purchased, and a wide straight slot screwdriver.

**CAUTION:** Be sure you are properly grounded before unwrapping the DayStar LocalTalk Board or beginning this installation.

1. Insert the key into the lock and turn it to the unlocked position (it is marked on the panel).
2. Using the screwdriver, turn the two large screws in the middle of the panel counterclockwise until they spin freely. Gently remove the panel and place it in a safe location.
3. Remove the blank-off plate in your chosen slot for installation by loosening the knurled nut on the rear of the PS/2 that locks the plate down. You may need to use the screwdriver for assistance.
4. Open the packaging containing your DayStar Board, and place the card into a slot. Firmly press the card into the motherboard connector, and ensure proper seating. The card should not be cocked in the socket.

**NOTE:** Serious damage to the computer can occur if power is applied with an improper connection.

5. Tighten the knurled screw on the rear of the unit to finger tightness.
6. Replace the side panel in the reverse order of the removal. Once the case is seated, re-install the screws removed above and replace the power cords.
7. Using a standard DB-9 LocalTalk connector kit (available from Apple, and others), connect the DB-9 adaptor to the DayStar Board, firmly pressing the adaptor on to the card's connector. Tighten the two screws that are part of the node connection cable onto the nuts provided on the LocalTalk board. Connect the network to your node box with cabling provided in the kit. Further information on this process is available from your network installer.

8. Power up your PC. You are now ready to install the Workstation software.
9. Place your Reference diskette that contains the @6674.ADF file into the PS/2's floppy drive and power up the computer. The machine will boot from the floppy, after notifying you of an error (with a double beep). It will also place an error code (165) on the screen. This is normal for a newly installed card.

When the computer finishes loading the program, it will display a message asking if you want to **Auto-Configure**. The proper response is **Yes**, allowing the program to read in the @6674.ADF file and use the information to configure the newly installed DayStar LocalTalk Board. When the configuration is complete, the program will notify you to remove the floppy and press **Return** to Exit. This will cause a normal re-boot, and this time, there should be no error message or double beep. You should now be able to execute the software driver installation. If you experience a problem, refer to Appendix B.

### Install The Workstation Software

Before installing the Workstation software, make a **backup** copy of your software Workstation disk. Follow the instructions in the User's Manual for your particular **type** of computer to copy the disks.

To install the Workstation software on a hard disk system:

1. Create a new directory on your hard disk called **DSTAR**.
2. Insert a copy of your Workstation disk in drive **A:**.
3. Copy all files from the Workstation disk into the **DSTAR** directory.

The **DSTAR** directory now contains all the pertinent files that will allow the **DayStar Interface Board** and the Workstation software to operate. You must include a

reference to the DSTAR directory in your Autoexec.bat file or the Workstation software will not function properly. You must also include a device statement in your config.sys file.

The directory DSTAR must be included in the path statement of your Autoexec.bat file. A sample Autoexec.bat file is provided for your reference only.

```
PATH=C:\;C:\DSTAR;C:\DOS;.....(list of DOS
directories for locating special commands)
DTALK (loads the LocalTalk network drivers)
```

If you change the address location from its original setting to a new setting, you must include the following command in the path statement of your Autoexec.bat file:

```
DTALK (space) /ADDRESS=XXX (insert the new card
address configuration)
```

If you wish to automatically mount an AFP server that resides on your network, you may include the following statements in your Autoexec.bat file, or they may be executed in another batch file. Refer to your DOS User's manual for more information on using Batch files.

```
DNET (network redirector for accessing AFP servers)
DNET2 (file server loader for running applications
from the server)
MOUNT d:(space) server@zone (space)user:password
(space)volume :password (automatically mounts an
AFP file server)
```

For more information on the MOUNT command, refer to "Using the AFP Workstation" under the "DayStar Workstation Software" section.

## Configure An Autoexec.bat File

## Configure Your Config.sys File

**NOTE:** If you are installing the DayStar File Server, please refer to the section under "Installing An Autoexec.bat File For Server Operation" listed under the File Server section.

If you insert commands into the Autoexec.bat file they will be executed automatically upon startup. Optionally, you may execute these commands by independently typing them at the DOS prompt or create a batch file.

**NOTE:** Autoexec.bat files can be created with any DOS editor or word processor that has a pure text mode. Refer to your DOS User's Manual for more information about Autoexec.bat files.

Our device driver must be installed in your config.sys for the DayStar software to print. The config.sys file must be placed in your root directory or on your boot floppy.

Your config.sys file should include the following information:

```
FILES=20
BUFFERS=20
DEVICE=C:\DSTAR\dslpt.sys[printer name]@[zone]
DEVICE=C:\DSTAR\dslpt.sys /N=LPT4 [printer
name]@[zone] (Include when specifying additional
printer ports)
```

*[printer name]*—insert your printer name.

*[zone]*—insert a zone name if more than one zone exists on your network.

If the name of your printer has a space in the name, double quotation marks must be inserted around the name. For example:

```
DEVICE=C:\DSTAR\dslpt.sys "printer name"
```



If multiple printers reside on the network and a printer is not specified, the LPT device driver will randomly search for a network printer and then print the file. For example, if you have three printers on the network, and a printer has not been specified in the config.sys file, the application you are printing from will search the network and print the file the first printer on the network.

If you only have one zone on your network, simply leave off "@" and the zone name.

Refer to your DOS User's Manual if you require additional information about config.sys files.

After completing the installation procedures, hit *Ctrl, Alt, Del* to reboot your computer.

You may test your network installation by typing—

**SHOW ALL** <enter>

If you can view other network users, printers and servers from your computer, your installation was a success.

If you have problems with your installation, review the installation procedures and refer to the troubleshooting section before calling technical support.

## Test Your Installation

# **Chapter 2**

---

Using The  
DayStar  
Printing  
Software

The DayStar printing software you received with your LocalTalk Interface Board includes:

- PostScript printing software for direct printing from within PostScript generating applications.
- ASCII to PostScript conversion software.
- Diablo 630 emulation software for non-PostScript applications (only works with printers that support Diablo emulation).

The Workstation printing software allows any PC or PS/2 computer to print directly to a PostScript laser printer or typesetter via LocalTalk without using the slower serial connection. You may print directly from within any PostScript generating application, such as Microsoft Word, WordPerfect or PC PageMaker, or you can take advantage of the Diablo emulation that is resident in most PostScript printers.

Before using the workstation printing software, you must know the answer to the following questions:

- Does your application generate PostScript?
- Does your application support port configurations?
- Does my printer support Diablo emulation?

If you are unsure of the answer to these questions, refer to your User's Manual or contact the manufacturer for verification.

To use the workstation printing software you must first configure your printer port options. Print options can be configured for multiple printers or for printing to various printer devices (e.g. LPT3, LPT4, etc.).

## About The DayStar Printing Software

## Using The Printing Software

## Configuring Your Printer Port

To set a selected printer to accept printing from LPT3, type—

**SETLPT** [**printer name**]@[**zone**] /d+ /m+ <enter>  
*[printer name]*—insert your printer name. If name has spaces, insert "quotation marks".  
*[zone]*—insert a zone name if more than one zone exists on your network.

This command adjusts the printer you specified to turn on the Diablo emulation (/d+) with manual feed (/m+) through LPT3.

### Command Options

Command options to use with SETLPT include:

- /a: adjusts ASCII filter and Control D filter. Used to filter out Control codes from PostScript applications.
- /d: adjusts Diablo emulation mode (otherwise PostScript).
- /m: specifies manual paper feed.
- /v: displays the current setup option.

The /d, /a, and /m options must be followed by a plus (+) to turn the option on, or a minus (-) to turn the option off. If you run this program without any parameters, it will tell you what is currently selected.

### Changing Default Settings—SETLPT

You can override the initial default printer that was specified in the config.sys file by using the SETLPT command.

For example, if you wish to print in the Diablo mode, you must first configure your printer port (e.g. LPT3) to print in

the Diablo mode using the SETLPT command. For example, at the prompt, type—

```
SETLPT [printer name]@[zone] /d+ <enter>
```

*[printer name]*—insert your printer name. If name has spaces, insert "quotation marks".

*[zone]*—insert a zone name if more than one zone exists on your network.

This command will turn the Diablo printing mode on.

To return to the PostScript printing mode, type—

```
SETLPT [printer name]@[zone] /d- <enter>
```

*[printer name]*—insert your printer name. If name has spaces, insert "quotation marks".

*[zone]*—insert a zone name if more than one zone exists on your network.

This command will turn off the Diablo printing mode and default to PostScript.

You may direct output to various print devices or for multiple printers by specifying a different name or different driver, such as LPT4, LPT5, LPT6, using the "SETLPT /N=" command.

For example, to configure a printer named LaserWriter to print to a port other than LPT3, use the SETLPT /N= command.

```
SETLPT LaserWriter /a+
SETLPT /N=LPT4 LaserWriter /a+
```

**NOTE:** Before using the SETLPT /N= command, you must have a device= command line in the config.sys file.

## Printing PostScript Applications

Many PC applications support PostScript printing, however they were not designed to use the LocalTalk network, even though most PostScript printing devices currently provide a LocalTalk port.

DayStar has included printing software to redirect the PC printer output to the LocalTalk Interface board, therefore you may print directly to the laser printer without exiting the program.

To take advantage of the direct printing feature, you must first "install" the printer port within your application.

Review your applications User Manual for further instructions on configuring printer ports, or refer to the Appendix in this manual for a brief review on some of the most popular applications.

## Configuring a Printer Device Driver

The printing software supports two LPT device drivers, DSLPT.SYS and DSLPT2.SYS.

DSLPT.SYS is the standard LPT driver which is normally used when configuring a printer.

DSLPT2.SYS supports configurable headers for prepending PostScript code to other headers. This option is useful if you want to change to international character encoding or if you want to include a small PostScript dictionary before each job. The size of the header is limited to about 1600 bytes since it must all be kept in memory. To specify the header, use the `/H-<filename>` option.

Both DSLPT.SYS and DSLPT2.SYS allow you to direct output to various print devices or for multiple printers.

To specify a different name or different driver, such as LPT4, LPT5, LPT6, use the `"/N="` command.

For example, to configure a printer named LaserWriter to print to LPT3 and LPT4, the following Device commands must be included in the in config.sys file.

```
DEVICE=DSLPT.SYS LaserWriter /d+  
DEVICE=DSLPT.SYS /N=LPT4LaserWriter /a+
```

This device command would configure two printers. The first Device command will print to LPT3 using diablo emulation, and the second Device command will print to LPT4 using PostScript. Both ports are configured to print to the same LaserWriter.

**NOTE:** Don't include the colon in the name of the device if you use the /N= option.

Once the device has been configured, you will print normally, directing the print file to the proper device specified (e.g. LPT3 for Diablo, LPT4 for PostScript).

**NOTE:** If your application does not support direct printing, you must exit the application and print to a file named LPT3.prn (3=device configured). If your application will print to a file, define the file name as LPT3.prn and print to the file.

To print the LPT3.prn file, use the PPR command and type—

```
PPR LPT3.prn <enter>
```

If you have previously used the LPT3.prn option, you will receive a message stating a file already exists with this name—write over the file.

**NOTE:** LPT3 does not work with the DOSPRINT command.

## Printing ASCII Files

You can convert any ASCII text file, such as Lotus, to PostScript for printing to a laser printer. Most PC application can generate a text file.

Before printing an ASCII file, you must first configure a port to print in the PostScript mode using the SETLPT command. (PostScript is the default setting.)

If you print an ASCII file with the Diablo mode turned on, you will receive a pure PostScript file from the printer.

To convert an ASCII file to PostScript, type—

```
ppr filename<enter>
```

This command will first convert the specified filename to PostScript and then send it directly to the laser printer.

You may follow the ppr command with option commands to customize your print file.

- c#      Number of copies to print.
- e#      Set tab spacing.
- outfile    Redirect output to outfile.
- l#      Set page-break at specified line#.
- mt#      Set top margin in tenths of an inch.
- ml#      Set left margin in tenths of an inch.
- mb#      Set bottom margin in tenths of an inch.
- n        Print line numbers.
- oc       'C' program listing option.
- oa       Assembler program listing option.
- r        Rotate to Landscape orientation.
- s#      Set character size in points.
- t        Print title and date/time header on each page.
- z#      Set paper size.
  - 0 = US Letter
  - 1 = US Legal
  - 2 = A4 Letter
  - 3 = B5 Letter
  - 4 = Ledger (11x17)



For example, if you want 10 copies of a file named Brochure, type—

```
ppr -c10 Brochure <enter>
```

If you would like to print a file with the title and date/time header on each page, type—

```
ppr -c10 -t Brochure <enter>
```

The file will print directly to the laser printer using the courier font.

If your application does not support PostScript, you may choose to print your file to a laser printer that supports Diablo emulation. Your printer must support Diablo printing to use this emulator.

To print using the Diablo emulation mode:

1. Switch your printer to Diablo.
2. Configure your printer for Diablo using SETLPT /d command.
3. Print the file normally via LPT3.

**NOTE:** If you experience printing with the top or bottom chopped off, you have problems with your printer emulation, not the printing software.

## Printing Via The Diablo Emulation

## Printer Status Bar

When printing a text application from your PC or PS/2, a status bar will appear across the top of your screen displaying print job and printer status information. This option is provided for computers equipped with CGA or monochrome monitor. With EGA monitors the status bar will not work.

# Chapter 3

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Using The  
DayStar  
AFP  
Workstation  
Software

The DayStar AFP Workstation software you received with your LocalTalk Interface Board includes:

- AFP software for accessing any AFP compatible file server from your PC or PS/2, refer to Chapter 4.
- Network access software for viewing network users and devices.

The AFP Workstation software allows any IBM PC, PS/2 or other compatible computer to access any AFP file server on the LocalTalk network, including the DayStar File Server and AppleShare. You may use the network file server as a remote disk drive to create and delete files and/or directories on the server, and to share files and information with other clients, including Macintosh computers.

**NOTE:** The AFP Workstation software is not used to access TOPS. To access TOPS, you must purchase the TOPS software for the PC.

To use TOPS with the DayStar LocalTalk board, you must load DTALK in your Autoexec.bat file as described in the installation section, and delete the reference to ATALK.sys in the config.sys file. Then load TOPS according to TOPS instructions. If you want to also log onto an Appleshare server, load DNET after TOPS

The following commands are used to access the network file server. These commands may be included in your Autoexec.bat file, a regular Batch file, or they may be executed from the DOS prompt.

**DNET:** Network redirector: must be executed before the server can operate properly.

**DNET2:** If you want to run programs off the server, you must include this command, however, running

## About The AFP Workstation Software

## Using The AFP Workstation

## Using The Board With TOPS

## AFP Workstation Commands

programs off the server will greatly reduce the performance of the network.

**MOUNT:** To log on to an AFP file server type the command followed with the drive, server name and the zone, user name and password, and the volume name and password.

**UNMOUNT:** To unmount a volume.

To log onto a network AFP file server, type—

**MOUNT f:** [server name]@[zone] [user]:[user password] <enter>

*volume:volume password*

*[server name]*—insert your server name.

*[zone]*—insert a zone name if more than one zone exists on your network.

*[user]*—insert your user name.

*[user password]*—insert your user password, if applicable.

*[volume]*—insert the server volume you wish to mount.

*[volume password]*—insert the volume password, if applicable.

- If the network has only one zone, you may leave that option blank.
- If passwords do not exist, you may leave that option blank.
- If only one volume exists on the server, you may leave that option blank.
- If the network has only one zone, you may leave that option blank.
- If your user name is not specified on the server, you may login as a guest by typing a dash (-) without a password.

For example, if you want to log onto a server named "Temple of Doom" in the zone "Egypt", mount the volume "Jones" on drive F: as a guest, you would type the following command:

```
MOUNT F: "Temple of Doom@Egypt" - Jones <enter>
```

**NOTE:** If the name of your server has a space in the name, double quotation marks must be inserted around the name.

You may leave parameters off the right end if the choice is obvious. For instance, if the server "Temple of Doom" had only one volume you could leave off the last two parameters and type—

```
MOUNT F: "Temple of Doom@Egypt" <enter>
```

You must always include the drive letter and the server name.

**NOTE:** Each option should be separated with one space. User names and zones are not case sensitive. Passwords are case sensitive.

When using the MOUNT command, the characters ":" or "@" are used to separate passwords and zones from proper names. If passwords or zones are not present, these characters should not be included.

To unmount a volume, type—

```
UNMOUNT <enter>
```

If more than one AFP server is mounted, specify the drive letter of the server you wish to unmount.

**UNMOUNT F:** *<enter>*

## Network Access

The **SHOW** command allows you to view network activity, registered users, printers, servers and zones.

**NOTE:** When using parameters with spaces in the name, the parameter should be enclosed in double quotes.

For example: **SHOW "TEMPLE OF DOOM"**

To show all registered users, printers, servers and zones on the network, type—

**SHOW ALL** *<enter>*

To show all registered printers on the network, type—

**SHOW PRINTERS** *<enter>*

To show all registered printers in a specified zone, type—

**SHOW PRINTERS@ZONE** *<enter>*

To show all zones that are registered to the network, type—

**SHOW ZONES** *<enter>*

To show all servers on the network, type—

**SHOW SERVERS** <enter>

To show all servers in a specified zone, type—

**SHOW SERVERS@ZONE** <enter>



# **Chapter 4**

---

Using The  
DayStar  
File Server

The DayStar File Server is hardware and software that turns any IBM PC, PS/2 or other compatible computer into a dedicated LocalTalk network file server.

This file server provides multiple users, including PCs and Macintoshes, full access to a central storage unit. Users may work directly from the server hard disk, creating folders or directories, copying and deleting files, or they may use the server as a large storage cabinet.

Before installing the DayStar File Server, you should first remove all files and applications from the hard disk. For optimum use, we also recommend that you reformat the hard drive. The PC server should not be used for other tasks once the server has been set up.

To install the File Server Interface board, follow the Hardware Installation in the section on installing the LocalTalk Interface Board.

Before installing the Server software, make a backup copy of your software Workstation disk.

- Insert a copy of your server disk in drive A:.
- Copy all files from the server disk into the root directory.

The following commands should be included in your Autoexec.bat file. The file chkdisk.com is included with your DOS software. If you create a directory to store your DOS files, you should verify the chkdisk.com file is in that directory. Be sure you include the complete path to the chkdisk.com file.

## About The DayStar File Server

## Install the DayStar File Server

## Configure An Autoexec.bat File

**PATH=C:\;C:\DOS;.....**(the DOS directory would include the chkdsk.com file)

**DTALKS** (loads the LocalTalk file server network drivers)

**SERVER** (loads the server software)

**NOTE:** Autoexec.bat files can be created with any DOS editor or word processor that has a pure text mode. Refer to your DOS User's Manual for more information about Autoexec.bat files.

After Completing the Installation procedures, reboot the server.

## Using the DayStar File Server

Before running the DayStar File Server, you must first execute the MAKEFS program.

MAKEFS should only be executed the first time you start up the server, or any time you experience a server crash.

To run this program, at the server's DOS prompt, type—

```
MAKEFS <enter>
```

Enter the server name and volume name when prompted.

You are now ready to start using the DayStar File server.

## Levels of Users

The DayStar File Server is a centralized storage unit that allows multiple Users to access its stored files. There are three levels of Users that can be assigned to the server: Administrators, SuperUsers, and Users.

Any User may be given Administrative privileges by the primary Administrator, which is the first user to use the ADMIN program.

Any User may be given SuperUser privileges by the Administrator. SuperUsers may open any directory/folder on the server with all privileges. SuperUsers may be assigned to clean up files belonging to a deleted User.

Users are assigned by the Administrator. Users may control their own files, folders, and passwords as desired.

Users may be assigned to one or more Group(s). For example, a sales representative may be included in the Sales and Marketing Groups.

Groups are optional and assigning Users to a Group is also optional. The Administrator may assign each User a Primary group and up to seven additional Secondary groups. The Primary group, if selected, is the default group assignment for all folders created by a user.

There are different names used to describe file systems. The PC usually works with Files and Directories, and the Macintosh works with Files and Folders. As far as the DayStar Server is concerned, Folders and Directories are identical.

Once a User has created a Folder/Directory, that User owns that Directory. The owner can give away the directory by changing its ownership. Changing Ownership is irrevocable.

Access to each directory is determined by the owner. This is known as Access Privilege. Privileges can be given to the clients by Users or Groups and can be set to Search, Read and/or Write to the directory.

Directories may be created as "Write Only" for special uses, such as a Drop Box or Mail Box, for memos, suggestions, expense reports, etc. Directories may also be created as "Read Only" for a bulletin boards or standard forms.

## Levels of Groups

## Levels of Folders/ Directories and Files

## Naming Conventions

The Macintosh may use up to thirty two characters in the file name; DOS can have only eleven (eight plus three). The Macintosh may use spaces in a file name; even trailing spaces are valid, PC's may not.

To help distinguish file names, the Server will name all files/folders/directories with both a short name for the PC and a long name for the Macintosh.

If a file is created by a Macintosh, the server uses an algorithm to convert a long name to a short name for the PC. Occasionally, the naming algorithm may generate an unusual DOS name.

For example:

<u>Macintosh Name</u>	<u>will display as</u>	<u>DOS Name</u>
New Documentation		!NewDocu
System Folder		!SystemF
Mac 3		!Mac 3
123456789abcde		!1234567.000
123456799ab		!1234567.001

**NOTE:** Be careful when deleting files that have unusual names. It's possible to destroy someone's files inadvertently.

## Administering The DayStar File Server

The DayStar File Server can be administered remotely from any PC or Macintosh on the network. However, only the Administrator, or users given ADMIN authority, will be able to administer the server.

Before running the ADMIN program for the first time, generate a list of all network Users, Passwords, Groups, and Group Assignments so that you are prepared to set up your server.

The Administrator program is named ADMIN.EXE; consisting of both a Macintosh and a PC-PS/2 program.

**WARNING:** Do not rename the ADMIN.EXE program or the PC version will not run.

Before accessing the ADMIN program, you should copy ADMIN.EXE from the Server to your local computer.

With the ADMIN program, you will be able to do the following:

- Get Server Information.
- Change Server and Volume Name.
- Shutdown the Server.
- Get List of Users.
- Add or Delete a User.
- Change User Information.
- Get List of Groups.
- Add or Delete a Group.
- Save or Restore User/Group List.

After installing the ADMIN program, the sequence for setting up a server are as follows:

1. Name the Server.
2. Name the Volume.
3. Create Server Groups.
4. Set ADMIN information.
5. Set ADMIN Password.
6. Set ADMIN Groups, Primary and Secondary.
7. Create Users.
8. Assign User Passwords.
9. Assign ADMIN and/or SuperUsers.
10. Save User and Group list.

1. Copy the ADMIN program from the Macintosh disk to your local drive.
2. Double click on the ADMIN.EXE Icon to execute the program.

**Using The  
Macintosh ADMIN**

3. The ADMIN program will load and the Server Chooser Screen will display.
4. Select the DayStar Server of you want to administer.
5. Enter your User Name and Password.
6. Proceed with the ADMIN functions as follows:

### **Creating Groups**

The first step to setting up the server will be adding New Groups.

1. Click on **Groups** from the menu bar.
2. Hold down the mouse and drag down to **New Group** and release the mouse. The New Group Box will appear.
3. Enter the Group name and click OK.

As the Groups are added, the Group name will be displayed under the **Groups** pull down menu.

### **Adding Users**

After creating new server Groups, you may add Users to the Groups.

1. Click on **Users** from the menu bar.
2. Hold down the mouse and drag down to **New User** and release the mouse. The New User Box will appear.
3. Enter the User name and Password.
4. Assign Primary and Secondary Groups by clicking on the field you want to assign; scroll down the Group list and release the Mouse on the desired Group name.

5. Remove a group by scrolling to **None**.

### **Changing User Information**

You may change User Information at any time.

1. Click on the User name you want to change under the Users menu.
2. Drag to the user name you wish to change and release.
3. A screen will display the current User information.
4. Change the desired User Information.
  - **Change Passwords:** Click on the Change Password button and enter the new Password.
  - **Delete A User:** Click on the Delete User button and click OK. When a User is deleted, all directories and folders will remain on the server. An ADMIN or SuperUser should be responsible for re-assigning the files to another User.
  - **Change Privileges:** Click the SuperUser or Administrator privileges.
  - **Change Groups:** Click the field you wish to change and drag down the mouse to the desired option and release

### **Getting Server Information**

1. Click on **Server** and drag down to highlight **Information**, and release.

Information about the DayStar Server will be displayed, including the version number and which AFP versions are supported.



### **Changing Server Names**

1. Click on **Server** and drag down to highlight **Change Server Name**, and release.
2. Enter the new Server name and click OK.

The Server name change will not take effect until the Server is restarted. Use this option with caution, as some programs look for a particular path when searching for information.

### **Changing Volume Names**

1. Click on **Server** and drag down to highlight **Change Volume Name**, and release.
2. Enter the new Volume name and click OK.

The volume name change will take place immediately. Use this option with caution, as some programs look for a particular volume when searching for information.

### **Shutting Down The Server**

1. Click on **Server** and drag down to highlight **Shutdown**, and release.
2. Specify the time lapse, in minutes, until the server will be shut down. Be sure to allow enough time for users to save their work and log-off.

All Users will be sent an alert pending a Shutdown. However, some User software may not display this message. You may cancel the shutdown at any time by clicking the **Cancel** button. Your decision to **Cancel** the shutdown will be confirmed and User's will be notified of the **Cancel**. You should shut down the server before performing backups or importing files.

### **Administering A New Server**

Click on **Server** and drag down to highlight **New Server**, and release. A list of DayStar Servers will be displayed.

The DOS ADMIN program is streamlined to simplify setup and ease of use for the DayStar File Server. Move through the menus using the cursor keys on the numeric keypad. The Enter key is used to enter the verification at a prompt. At any time, the ESC key will bounce you back to the previous menu. Use the F10 key to save the changes that you made.

After installing your DayStar Interface board and server software, run the DOS ADMIN program by typing—  
ADMIN <enter>

The ADMIN program will load and you will be given a series of screens and lists. The first screen is the Server chooser screen which allows you to select the Server to be administered. The DayStar ADMIN program will only allow access to DayStar Servers; other Servers will cause a "Not a DayStar Server" message to be displayed. Each server has it's own administration program.

When you have selected the Server (using the cursor keys), press Enter.

After selecting a DayStar Server you will be asked for your Name and Password.

Initially, the only authorized user is ADMIN with no Password. You will now see the ADMIN list of functions. Only those users with ADMIN authority may use the ADMIN program. If you are not an authorized ADMIN User, you will receive an error message.

Assign your own ADMIN Password and establish Group assignments.

### **Creating Groups**

To create a new group:

1. Select **Add a Group** <enter>

2. Enter the new Group name. Group names may have up to 32 characters.
3. Repeat the above steps until all Groups have been assigned.

Once Groups have been added, if applicable, add new users.

### **Adding Users**

To add new users to the server:

1. Select **Add User** <enter>
2. Enter the new user's name and password. User names may have up to 32 characters. Passwords are allocated for 8 characters only. Simply overtype the diamonds in the field with the desired alphanumeric password until you have 8 characters
3. Press Enter to select the next field. You may skip a non-applicable field by pressing the Enter key until the required field is highlighted.
4. Select User privileges, either Admin or SuperUser by pressing the "+" on the keypad. A check mark will appear in the [] next to the title of the field.
5. Select the Primary Group by using the "P" on the keypad.
6. Repeat the above steps until all Users have been assigned.
7. Hit F10 when you are finished assigning each user to save the changes.

If you elect to exit without saving the changes, press ESC. This will bump you back to the previous menu, saving only

the user name. If you want to delete a user at any time, use the "Delete a User" selection.

**NOTE:** You should set up the ADMIN name and password first. Keep this password in a safe place. If you lose it, it may be impossible to perform ADMIN functions.

### **Changing User Information**

If you need to update user information, such as changing their password, or changing Group privileges:

1. Select **Change User Information** <enter>
2. Select the User you wish to change from the list of users given.
3. Press Enter until you reach the desired field.
4. Change fields as necessary, or use the + key to toggle the check symbol.
5. Hit F10 when you are finished with each User change.

### **Deleting Users**

Users may be deleted by the Administrator at any time. All files and folders/directories belonging to that User remain on the server. Those folders/directories should be reassigned by the SuperUser.

### **Changing Server and Volume Names**

Select **Change Server Name**, or **Change Volume Name**. You will be prompted to type the new name.

The Server name change will not take effect until the Server is restarted. The volume name change will take place immediately. Notifying all users prior to a change so that they may modify their auto-mount statement in the autoexec.bat.

## Shutting Down The Server

While the server is active, the screen will continuously display a command line. The only command this screen will recognize is the "Shutdown" command.

By typing the Shutdown command, all active files on the server will be closed before the server is terminated. The Shutdown command is the same equivalent as choosing "Server Shutdown" in the Admin program.

# Troubleshooting

This sections provides a quick reference for you if you experience problems with installation or receive error messages that you are unsure of. Please review this section carefully before contacting DayStar Digital.

If you experience problems printing within your application, refer to your Application's User Manual to verify printing support.

If the problem is within your computer, refer to your computer User Manual.

**Problem:** If you are experiencing a hardware conflict, check the address configuration on other cards that reside in your computer. If there is an address conflict, refer to the Appendix for information on changing the DayStar Interface Board Address Configuration.

**Message:** The System file is too old for AppleShare Admin (v2.0.1). Please restart using the Server Administration disk (v2.0.1) and open AppleShare Admin again.

**Solution:** You have accessed the PC Admin program. Copy Admin from the Macintosh distribution disk and try again.

**Message:** "Can't find server.da"

**Solution:** You did not run MAKEFS. Return to the DOS prompt and type MAKEFS

**Message:** "General Failure Error Writing Device LPT3"

**Solution:** You did not load the DTALK driver. Either include the driver in your autoexec.bat file or type it at the DOS prompt.

## Troubleshooting

### Error Messages From The Macintosh

### Error Messages From The PC or PS/2

**Message:** "Bad Unit Error Writing Device LPT3"  
**Solution:** The printer you selected does not exist. Choose another printer and try again.

**Message:** "Bad Command Error Writing Device LPT3"  
**Solution:** Verify that the printer name was typed correctly. If a space exists in the name, be sure you have inserted double quotation marks around the name. Refer to "Using The Workstation Printing Software" in the "DayStar Workstation Software" section.

**Message:** "AppleTalk Driver Not Installed"  
**Solution:** The DTALK driver has not been executed.

**Message:** "Login Status = -1"  
**Solution:** Execute DNET from the DOS prompt, or include it in a Batch file. Refer to the "Installation and Setup" section.

**Message:** "Login Status = -360"  
**Solution:** The Server Username or Password is incorrect. Try again or refer to "Using The AFP Workstation" in the "DayStar Workstation Software" section.

**Message:** "Login Status = -205"  
**Solution:** Either the Server name, Volume name, or User name is incorrect. Type Show all to display the correct server name and try again, or refer to "Using The AFP Workstation" in the "DayStar Workstation Software" section.

If you experience problems that are not listed in this troubleshooting section, contact the Customer Service Department at 1-404-967-2077. We will be happy to assist you with any problems you may be having.

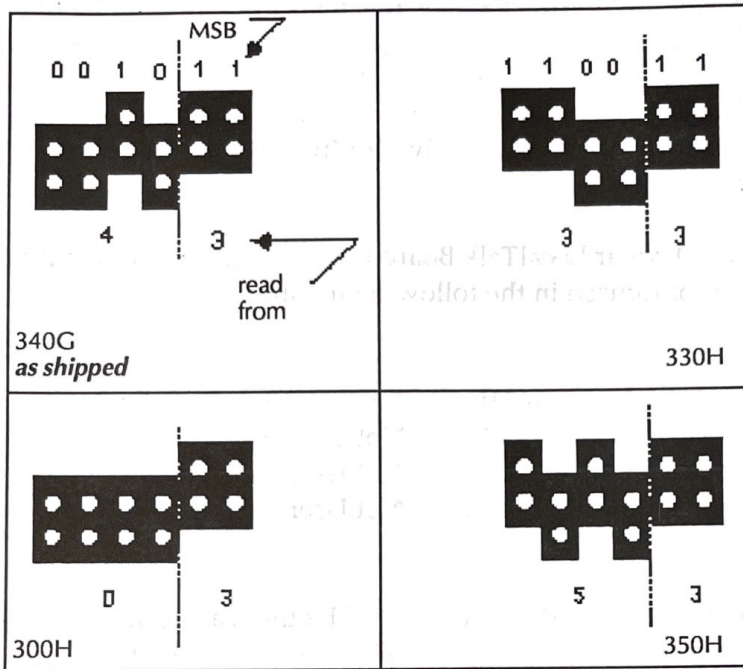


# **Appendix A**

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## Changing The Address Configuration

## Changing The PC Address Configuration



These are some examples of other addresses that may (or may not) be used. These alternates may conflict with other installed adapters. Custom installation by an experienced technician is suggested. In normal usage for DayStar products, no hardware interrupts or DMA channels are utilized, ensuring full compatibility with most PC's and compatibles.

## Changing The MC Interrupt Level

Power On Setup (POS) is a new feature introduced by IBM in an attempt to relieve the end user of being expected to configure option cards to function in their PC's. The PS/2 comes with a Setup\Reference diskette that contains software to dynamically configure the Adapters at installation.

The DayStar LocalTalk Board contains fixed resources that are configured in the following manner:

pos [0]=xxxx1001b	Interrupt 3 or Register 3
pos [1]=01000000b	Not User Addressable
pos [2]=00000011b	Not User Addressable
pos [3]=XXXX1010b	Not User Addressable

If there is an address conflict with other cards,, Interrupt 3 (pos [0]) can be changed to eliminate the conflict.

To change the Interrupt, configure Pos [0]=xxxx1001b, using EDLIN or any text editor, to the new interrupt level as follows:

XXXX1011B = Interrupt level 5  
XXXX1101B = Interrupt level 6  
XXXX1111B = Interrupt level 7

Re-configure your PS/2 using the new ADF file on the RS/2 Reference diskette.

The Autoexec.bat file must be configured to include the new interrupt command as follows:

**DTALK (space) /Cardinit=x (x=the new interrupt level)**

>Register 4 == 01000000B. The least significant byte of the port address. This is equivalent to 40H (hex). DayStar uses port address 340. This register is used in conjunction with Register 5, which is the most significant byte. Other address configurations, for example, are:

01010000B == 50H  
01100000B == 60H  
10100000B == AAH

Care should be taken that these addresses do not collide with other installed, or system hardware addresses.

## Changing The MC Address Configuration

# Appendix B

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Configuring  
Applications  
For Printing

## Configure Microsoft Windows

Microsoft Windows supports PostScript printing, Windows Write, Paint, Notepad, Aldus PC PageMaker, and any application designed to use the Windows interface can print to a PostScript device.

There are two ways to use the LocalTalk PostScript print device with Windows. To use Windows over the LocalTalk network follow these steps.

1. Configure your port (e.g. LPT3, LPT4, etc.) for ASCII filter.

```
SETLPT [printer name]@[zone] /a+ <enter>
```

*[printer name]*—insert your printer name. If name has spaces, insert "quotation marks".  
*[zone]*—insert a zone name if more than one zone exists on your network.

2. Load Microsoft Windows.
3. Install a new printer, PSCRIPT.DRV.
4. Edit the WIN.INI file:  
Under ports:  
replace LPT3:=(default)  
with LPT3:=LPT3.PRN

**NOTE:** Be sure that your port matches the names specified in the WIN.INI file (e.g. LPT3.PRN or LPT4.PRN, etc.).

Under spooler:  
replace spooler=yes  
with spooler=no

5. Save the file and quit.
6. Load Windows again. Windows will read the WIN.INI file only when it is loading.

7. Pull down Control Panel/Setup/Connections and select the printer you specified (e.g. PostScript/LaserWriter on LPT3.PRN).
8. Pull down Control Panel/Setup/Printer and select the printer you specified (e.g. PostScript/LaserWriter on LPT3.PRN).

Any Windows applications can print direct to the printer in this manner. You may also configure multiple printers using this procedure.

**NOTE:** Since Windows was not intended for LocalTalk PostScript printing, you will not receive Printer Status messages.

Most versions of Microsoft Word support PostScript printing, however, the printer initialization file is different in each version.

You will need to know the name of the initialization file for your particular version of Microsoft Word before continuing with the installation.

Version #	Initialization File
earlier than 2.00	MSSETUP.PS
2.00, 2.01, 3.00, 3.01	APPLASER.INI
4.0 and higher	POSTSCRIP.INI POSTSCRL.INI

1. Configure your port (e.g. LPT3, LPT4, etc.) for ASCII filter using the following command.

**SETLPT [printer name]@[zone] /a+ <enter>**

*[printer name]*—insert your printer name. If name has spaces, insert "quotation marks".

*[zone]*—insert a zone name if more than one zone exists on your network.

2. Rename the initialization file within your application to LW.INI.
3. Create an empty file using the same name as your original initialization file by typing the following command at the DOS prompt—

**COPY CON [initialization file name] <enter>**

*<hit space bar> <hit CTRLkey and Z together> <enter>*

4. Send the renamed setup file, LW.INI, to the printer by typing the following command at the DOS prompt—

**COPY LW.INI LPT3 <enter>**

The setup file remains memory resident in the PostScript printer until the printer is powered off.



5. Load Microsoft Word.
6. Select PRINT/PRINT/OPTIONS/PRINTER:  
[POSTSCRIPT and SETUP:LPT3:]
7. Print normally.

**NOTE:** Since Windows was not intended for LocalTalk PostScript printing, you will not receive Printer Status messages.

WordPerfect 4.2 and higher supports PostScript printing. To use WordPerfect with the direct printing option, configure your printer options in the following manner:

1. Configure your port (e.g. LPT3, LPT4, etc.) for ASCII filter using the following command.

```
SETLPT [printer name]@[zone] /a+ <enter>
```

*[printer name]*—insert your printer name. If name has spaces, insert "quotation marks".

*[zone]*—insert a zone name if more than one zone exists on your network.

2. Load WordPerfect and create a file to print.
  3. Hit <shift F7> at the same time.
  4. Select "Printer Control" .
  5. Select "Printer" option #3.
  6. Select printer option.
  7. Select the Printer/Font/Orientation option.
  8. Select Printer Port Option #8, "Device or File Pathname="
- Enter LPT3.PRN or other port configuration.  
Be sure that your port matches the names specified in the config.sys file (e.g. LPT3.PRN or LPT4.PRN, etc.).

**NOTE:** Due to the method employed in selecting the fonts, and orientation, you must configure a different printer for each font/orientation option you wish to use. Refer to the WordPerfect User Manual for further information on printer options.

9. Select continuous feed.
10. Hit <F7> to exit.

11. Select "Print A Document" option P.

12. Print normally.

If your printer does not respond, verify that you have installed your printer correctly, following the instructions in your WordPerfect User Manual.



# Product Warranty

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DayStar Digital, Inc. warrants that it will repair or replace, at its option, any defective products properly returned to our factory at no additional charge for a period of ONE (1) FULL YEAR from the date the product is purchased by the original end user.

This warranty does not apply if the hardware product has been damaged by accident, misuse, or abuse including installation with non compatible products, or has been modified in any way, or if the serial number has been removed or defaced. This warranty does not apply to damage or failure of the computer, or the computer's power supply analog and/or CPU logic board, or any other add-in boards. This warranty is extended only to original end users.

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All correspondence and technical questions should be referred to:

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